

## EUROPA Installation

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## EUROPA Installation

Currently, EUROPA is only available as a source distribution and you will have to build it yourself. This page outlines steps needed to get EUROPA built and running on your system.

### Software Requirements

To begin with, you will need the following software installed on your system:

- Jam 2.5 - An automated build system (*replacement for make*)
- Java 1.5 - A platform independent programming language and runtime.
- Optional:
  - ♦ Ant - A Java-based build tool. (*RECOMMENDED: required for PSUI*)
  - ♦ Doxygen - An automated documentation generator. (*required only to generate API documentation*)

The following software is also required, but is likely already installed on your system:

- Subversion - version control system.
- GCC 3.3+ - GNU Compiler Collection.
- Perl - A general purpose scripting language, used for some utility scripts in PLASMA. (*not strictly required*)
- SSH (client) - A secure replacement for remote shells, `cvs` will communicate over `ssh` streams.
- SWIG - Tool that allows us to expose C++ interfaces in Java and other languages
- CVS (client) - Concurrent Versions System, for acquiring the EUROPA<sub>2</sub> source code.

*While not currently officially supported EUROPA<sub>2</sub> should run on Windows:*

- Cygwin - A POSIX environment for Microsoft Windows.

### Checkout

Checkout the two EUROPA packages (PlanWorks contains the PlanWorks and PSUI visualization tools, while PLASMA contains the core EUROPA software). In the desired directory, run:

```
svn co https://babelfish.arc.nasa.gov/svn/europa/PlanWorks/trunk/ PlanWorks
svn co https://babelfish.arc.nasa.gov/svn/europa/PLASMA/trunk/ PLASMA
```

## Environment Configuration

The following environment variables are needed to build and run EUROPA (shown here added to `~/ .bashrc`, assuming that PLASMA was checked out in the `/home/tsmith/svn` directory):

```
export JAVA_HOME=/home/tsmith/programs/jdk1.6.0_03 # the directory where you installed Java
export PLASMA_HOME=/home/tsmith/svn/PLASMA          # wherever you checked out PLASMA
export LD_LIBRARY_PATH=$PLASMA_HOME/lib:.            # DYLD_LIBRARY on a Mac
```

You may also need to add the 'jam' executable to your path:

```
export PATH=$PATH:/home/tsmith/programs/jam/:. #Add jam to your path
```

## Build

To build EUROPA, simply `cd` to your PLASMA directory, and run:

```
% jam
```

This creates a debug version of EUROPA. For an optimized version, run:

```
% jam -sVARIANTS=OPTIMIZED
```

For more build configuration details and options, see the [Build Configuration](#) page.

## PSUI

Once everything is built in PLASMA, we recommend building PlanWorks as well. To do so, follow these extra steps:

1. Copy the `PlanWorks/PSUI/test/.ant.psui.properties` file into your home directory
2. Edit the `workspace.dir` variable in that file to point to `PlanWorks/PSUI/test`
3. Add `$ANT_HOME` to your environment variables. In `bash` for example:

```
export ANT_HOME=/home/tsmith/eclipse/plugins/org.apache.ant_1.7.0.v200706080842
```

4. Add the ant bin to your path. In `bash`, add this to the `.bashrc` file (note that this uses `$ANT_HOME` and must be later in your file):

```
export PATH=$PATH:$ANT_HOME/bin:.
```

## Troubleshooting

To see if you have the necessary software requirements, in your PLASMA directory, run:

```
% checkreqs
```

If you have any trouble, please [Contact](#) the EUROPA team.